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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,238	09/19/2005	Nae Hyuck Chang	51876P723	1833
8791	7590	11/01/2007		
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040			EXAMINER SIM, YONG H	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 11/01/2007	DELIVERY MODE -PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/511,238

Applicant(s)

CHANG ET AL.

Examiner

Yong Sim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-2, 5-6 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5-6 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on 8/17/2007 have been fully considered but they are not persuasive.

Applicant argues that Cui does not disclose or suggest the limitations of Applicant's amended claims 1, 5, 9 and 12, of "receiving LCD backlight intensity information from an end user terminal having the LCD," or "transmitting the adapted visual signal of the end user terminal."

However, Examiner respectfully disagrees since Cui expressly teaches in Para 0021 "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program."

Therefore, the previous rejections are maintained.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1 – 2, 5 – 6 and 9 - 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Cui (US 2003/0001815A1).**

Re claim 1, Cui teaches an apparatus for processing visual signals to be displayed on a liquid crystal display (LCD), comprising:

a receiving means for receiving LCD backlight intensity information from an end user terminal (200 “a flat panel display monitor/end user terminal” Fig. 2a) having the LCD (215 “flat panel monitor screen/LCD” Fig. 2a. The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

; an adaptation means for adapting one of brightness and contrast of the visual signal based on the received LCD backlight intensity information;

a transmitting means for transmitting the adapted visual signal to the end user terminal [Para 0021; “In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is

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adjusted/adapted by a software program/adaptation means and transmitted to the flat-panel display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.).

In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

Re claim 2, Cui teaches the apparatus as recited in claim 1, wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value  $Y$  to a value  $Y'$ , the adaptation means adapts the original pixel value of the visual signal to a pixel value proper for the value  $Y'$  [Para 0021; "In order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing  $Y$  to  $Y'$ ) the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from  $Y$  to  $Y'$ .]

Re claim 5, Cui teaches a method for processing (105 "processor" Fig. 1) visual signal to be display on a liquid crystal display (LCD), comprising the steps of:

a) receiving LCD backlight intensity information from an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) having the LCD (215 "flat panel monitor screen/LCD" Fig. 2a). The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

b) adapting one of brightness and contrast of the visual signal based on the received LCD backlight intensity information;

c) transmitting the adapted visual signal to the end user terminal [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

Re claim 6, Cui teaches the method as recited in claim 5, wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value  $Y$  to a value  $Y'$ , the pixel value of the visual signal is adapted to a pixel value proper for the value  $Y'$  in the step b) [Para 0021; "In order to maintain a pre-determined display image quality/(original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing  $Y$  to  $Y'$ ) the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from  $Y$  to  $Y'$ .].

Re claim 9, Cui teaches an apparatus for processing visual signal, comprising:  
an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) with a liquid crystal display (LCD) (215 "flat panel monitor screen/LCD" Fig. 2a. The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015)

for generating and transmitting LCD backlight intensity information [Para 0021; "image brightness is detected in response to adjusting backlight brightness." Backlight information must be generated in order to be detected for image adjustment.], and displaying a visual signal on the LCD;

a receiving means for receiving the LCD backlight intensity information from the end user terminal;

an adaptation means for adapting one of or both of brightness and contrast of the visual signal based on the received LCD backlight intensity information; and

a transmitting means for transmitting the adapted visual signal to the end user terminal [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained."].

Re claim 10, Cui teaches the apparatus as recited in claim 1, wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value  $Y$  to a value  $Y'$ , the adaptation means adapts the original pixel value of the visual signal to a pixel value proper for the value  $Y'$  [Para 0021; "In



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order to maintain a pre-determined display image quality/{original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing Y to Y') the flat-panel display/LCD monitor backlight brightness." When the backlight brightness is adjusted, the luminance value would change from Y to Y'.].

Re claim 11, Cui teaches the apparatus as recited in claim 9, wherein the end user terminal dynamically generates the LCD backlight intensity information according to the visual signal display on the LCD (Para 0021; "the backlight brightness of a flat-panel display monitor may be adjusted to satisfy a computer system power consumption target when the computer system is operating on either battery power or AC power. The backlight must be dynamically adjusted In order to satisfy the consumption target of the system.).

Re claim 12, Cui teaches a method for processing visual signal in a system comprising an end user terminal (200 "a flat panel display monitor/end user terminal" Fig. 2a) with a liquid crystal display (LCD) (215 "flat panel monitor screen/LCD" Fig. 2a. The monitor 200 comprises a flat panel display such as an LCD within the monitor. The flat panel display/LCD can also be comprised with in an end user terminal such as a PDA or a Laptop. See Para 0015) and an adaptation apparatus (Para 0021; The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user

terminal to be displayed. The program which, is an adaptation means, must be stored in an apparatus such as a memory chip.), comprising the steps of:

a) in the end user terminal, generating and transmitting LCD backlight intensity information to the adaptation apparatus [Para 0021; "image brightness is detected in response to adjusting backlight brightness." Backlight information must be generated in order to be detected for image adjustment.];

b) in the adaptation apparatus, receiving the LCD backlight intensity information from the end user terminal;

c) in the adaptation apparatus, adapting one of or both of brightness and contrast of the visual based on the received LCD backlight intensity information;

d) in the adaptation apparatus, transmitting the adapted visual signal to the end user terminal; and

e) in the end user terminal, receiving and displaying the adapted visual signal on the LCD [Para 0021; "In order to maintain a pre-determined display image quality, a display image brightness may then be detected and adjusted (The visual signal is adjusted/adapted by a software program/adaptation means and transmitted to the flat-display monitor/end user terminal to be displayed.) in response to adjusting the flat-panel display monitor backlight brightness/backlight intensity (The backlight brightness/intensity is generated from the flat-panel display monitor/end user terminal.). In one embodiment, the display image brightness is detected by display image detectors (The backlight intensity is received by the image brightness detectors/a receiving means and sent to a software program to adapt a visual signal.) that indicate

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display image brightness to a software program. The software/(adaptation means) program may adjust/adapt the display image brightness/visual signal, while the power consumption target (target maybe reduction) is achieved or maintained.”].

Re claim 13, Cui teaches the method as recited in claim 12, wherein if the LCD backlight intensity information indicates that the backlight of the LCD is adjusted from the original luminance value  $Y$  to a value  $Y'$ , the pixel value of the visual signal is adapted to a pixel value proper for the value  $Y'$  in the step c) [Para 0021; “In order to maintain a pre-determined display image quality/(original luminance) a display image brightness may be detected and adjusted/(adapting proper visual signal for original luminance) in response to adjusting (Changing  $Y$  to  $Y'$ ) the flat-panel display/LCD monitor backlight brightness.” When the backlight brightness is adjusted, the luminance value would change from  $Y$  to  $Y'$ .].

Re claim 14, Cui teaches the method as recited in claim 12, wherein the step a) includes dynamically generating the LCD backlight intensity information according to the visual signal displayed on the LCD (Para 0021; “the backlight brightness of a flat-panel display monitor may be adjusted to satisfy a computer system power consumption target when the computer system is operating on either battery power or AC power. The backlight must be dynamically adjusted In order to satisfy the consumption target of the system.”).

***Conclusion***

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Sim whose telephone number is (571) 270-1189. The examiner can normally be reached on Monday - Friday (Alternate Fridays off) 7:30-5:00.

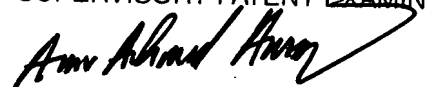
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YHS  
10/23/2007

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a large, sweeping flourish extending to the right.